

REMARKS/ARGUMENTS

The Final Official Action dated 11 April 2007 has been carefully considered, along with cited references, applicable sections of the Patent Act, Patent Rules, the Manual of Patent Examining Procedure and relevant decisional law.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Chou 6,095,758 in view of Karassik et al., "Pump Handbook".

Applicant respectfully submits that the present invention is different from that of the cited arts as can be seen from their respective structures. Applicant's invention as specified in the amended claim 1 is patentably distinguishable over these references when taken either singularly or in combination for the following reasons:

The Examiner cites Chou as an example disclosing a structure for a compact air compressor including a base or securing seat 1 with an opening 10 including a peripheral flange 101, an eccentric weight 20 including a shaft 21 extended therefrom and secured to the base and a pin 24 eccentric relative to the shaft, a cylinder 17 including a piston 30 rotatably coupled to the pin through link 34, a gear 22 attached to weight 20, and a motor 15 secured to the base via screw rods 13 and including a pinion or main gear 16 engaged with gear 22 to rotate the gear and weight relative to the base about shaft 27 (figure 4) and reciprocate the piston rod in the cylinder, a chamber or receiving recess 2A formed in gear 22 to receive weight 20 and two bars or shoulders extending from gear 22 to form a peripheral casing to secure the weight.

The Examiner then states that Chou does not disclose a bearing engaged in the opening of the base and retained in the peripheral flange of the base.

The Examiner then further cites "Pump Handbook" as an example teaching that bearings were used to keep a rotating shaft in correct alignment with a stationary part and that ball bearings "with their high-speed capabilities and low friction" are ideal for small and medium-sized applications.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Chou's invention with a ball bearing to reduce friction on the rotating shaft and keep the shaft in correct alignment with a stationary base.

However, applicant would like to point out that the present applicant has developed various kinds of compact air compressors including at least U.S. Patent No. 6,095,758 to Chou, U.S. Patent No. 6,135,725 to Chou, U.S. Patent No. 6,146,112 to Chou, and U.S. Patent No. 6,655,298 to Chou, and many others, in which U.S. Patent No. 6,095,758 to Chou in one of the developments by the present applicant, and the present applicant would like to further point out that the prior compact air compressors failed to provide a base (2) having an opening (27) formed therein for receiving the bearing (23) therein, and having a peripheral flange (28) to define the opening (27) of the base (2) and to solidly retain the bearing (23) in the opening (27) of the base (2).

Without the provision and the engagement of the bearing (23) into the opening (27) of the base (2), and without the engagement of the shaft (37) of the eccentric member (36) with the bearing (23), the

eccentric member (36) may apply a great force against the base (2) and may be quickly become loose relative to the base (2) and may thus generate a great noise after use, and may also generate a great heat due to friction.

By contrast, in Applicant's invention, as amended in the amended claim 1, the base (2) includes an opening (27) formed therein and defined by a peripheral flange (28), and a peripheral shoulder (29) formed between the orifice (22) and the opening (27) of the base (2) for stably receiving the bearing (23) therein and for engaging with the shaft (37) of the eccentric member (36) in order to smoothly couple the shaft (37) of the eccentric member (36) to the base (2) and to prevent the shaft (37) of the eccentric member (36) from becoming loose relative to the base (2) and thus to prevent the great noise from being generated between the shaft (37) of the eccentric member (36) and the base (2), and also to prevent the great heat from being generated between the shaft (37) of the eccentric member (36) and the base (2).

The cited arts fail to teach a compact air compressor comprising a base (2) including an opening (27) formed by a peripheral flange (28) and a peripheral shoulder (29) formed between the orifice (22) and the opening (27) of the base (2) for stably receiving the bearing (23) and for engaging with the shaft (37) of the eccentric member (36) in order to smoothly couple the shaft (37) of the eccentric member (36) to the base (2) and to prevent the shaft (37) of the eccentric member (36) from becoming loose relative to the base (2) and thus to prevent the great noise from being generated between the shaft (37) of the eccentric member (36) and the base (2), and also to prevent the

great heat from being generated between the shaft (37) of the eccentric member (36) and the base (2). The applicant's invention is different from that of the cited arts and has improved over the cited arts.

In view of the foregoing amendments and remarks, applicant respectfully submits that the present invention is patentably distinguishable over the cited arts and that the application is now in condition for allowance, and such action is earnestly solicited.

Courtesy and cooperation of Examiner HAMO are appreciated.

respectfully submitted,

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